**SYLLABUS**

**regarding the qualification cycle FROM 2023TO 2024**

1. Basic Course/Module Information

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| --- | --- |
| Course/Module title | Programming MS Office Applications |
| Course/Module code \* |  |
| Faculty (name of the unit offering the field of study) | College of Natural Sciences |
| Name of the unit running the course | Institute of Computer Science |
| Field of study | Computer Science & Computer Science and Econometrics |
| Qualification level | First degree |
| Profile | Academic |
| Study mode | Full-time |
| Year and semester of studies | **2rd year, 4th semester** |
| Course type | Elective subject |
| Language of instruction | English |
| Coordinator | Dr Krzysztof Balicki |
| Course instructor | Dr Wojciech Rząsa |

\* - as agreed at the faculty

* 1. Learning format – number of hours and ECTS credits

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Semester  (n0.) | Lectures | Classes | Colloquia | Lab classes | Seminars | Practical classes | Internships | others | **ECTS credits** |
| 4 |  | 15 |  |  |  |  |  |  | 2 |

1.2. Course delivery methods

- conducted in a traditional way

- involving distance education methods and techniques

1.3. Course/Module assessment

- pass with a grade

2. Prerequisites

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| Handling MS Excel program on intermediate level |

3. Objectives, Learning Outcomes, Course Content, and Instructional Methods

3.1. Course/Module objectives

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| --- | --- |
| O1 | Improving effectiveness of working with Word and Excel applications by using macros |
| O2 | Ability of recording macros in Word and Excel applications |
| O3 | Knowledge of VBA language |
| O4 | Ability of programming functions and procedures in Excel |
| O5 | Ability of macros programming with the usage of sample library objects of VBA |

3.2. Course/Module Learning Outcomes (to be completed by the coordinator)

|  |  |  |
| --- | --- | --- |
| Learning Outcome | The description of the learning outcome  defined for the course/module | Relation to the degree programme outcomes |
| LO\_01 | Student can create macros in Word and Excel by recording them |  |
| LO\_02 | Student knows 2 ways of macros’ saving (in personal macro workbook or in .xlsm, .docm files) and can use saved macros |  |
| LO\_03 | Student knows grammar of VBA language and its API |  |
| LO\_04 | Student can write short, practical functions and procedures in Excel |  |
| LO\_05 | Student can use some library objects in his/her macros |  |

**3.3. Course content (to be completed by the coordinator)**

1. Lectures

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| Content outline |
| What is macro? |
| How to prepare macro and how to manage with macros |
| Introduction to VBA language |
| Functions vs procedures in Excel macros |
| Hierarchy of objects in VBA; using sample library objects and collections of objects |

1. Classes, tutorials/seminars, colloquia, laboratories, practical classes

|  |
| --- |
| Content outline |
| Creating macros by recording |
| Management of macros |
| Introduction to VBA language |
| Programming functions and procedures in Excel |
| Programming macros with the usage of some library objects as Sheets, Sheet, Range |

3.4. Methods of Instruction

Lecture supported by a multimedia presentation / distance learning

Classes: project work (implementation project, practical project) / distance learning

4. Assessment techniques and criteria

4.1 Methods of evaluating learning outcomes

|  |  |  |
| --- | --- | --- |
| Learning outcome | Methods of assessment of learning outcomes (e.g. test, oral exam, written exam, project, report, observation during classes) | Learning format (lectures, classes,…) |
| LO-01 – LO-o3 | observation during classes | classes |
| LO-o4 – LO-o5 | project | lecture |

4.2 Course assessment criteria

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| Final project’s quality is a base for the assessment.  Entirely done, excellent project or with very minor imperfections – grade A  Partly done project with some minor errors – grade C  Partly done project with incidental major errors – grade E  Undone project or partly done project with some major errors – grade F |

5. Total student workload needed to achieve the intended learning outcomes

– number of hours and ECTS credits

|  |  |
| --- | --- |
| Activity | Number of hours |
| Scheduled course contact hours | 15 |
| Other contact hours involving the teacher (consultation hours, examinations) | 3 |
| Non-contact hours - student's own work (preparation for classes or examinations, projects, etc.) | 35 |
| Total number of hours | 53 |
| Total number of ECTS credits | 2 |

\* One ECTS point corresponds to 25-30 hours of total student workload

6. Internships related to the course/module

|  |  |
| --- | --- |
| Number of hours | *-----------------------------* |
| Internship regulations and procedures | *-----------------------------* |

7. Instructional materials

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| Compulsory literature:  Excel VBA. Notes for Professionals (goalkicker.com) |
| Complementary literature:  VBA. Notes for Professionals (goalkicker.com) |

Approved by the Head of the Department or an authorised person